

DOCUMENT RESUME

ED 247 552

CS 207 668

AUTHOR Stocking, S. Holly
TITLE Public Relations Efforts and News-Value Characteristics of Organizations: An Exploratory Study of Their Relative Influence on Media Visibility.
PUB DATE Aug 83
NOTE 27p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (66th, Corvallis, OR, August 6-9, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Information Dissemination; *Media Research; *Medical Schools; *News Media; News Reporting; *Organizational Communication; Organizational Effectiveness; *Publicity; *Public Relations; School Role
IDENTIFIERS *Media Role

ABSTRACT

To explore the relative roles played by news views and public relations efforts in determining amount of news coverage, a study assessed the independent roles of public relations efforts, research productivity, and school prestige in securing science news coverage for American medical schools. Data consisted of archival and survey data obtained from 85 university affiliated medical schools for 1979. Media visibility scores for each medical school were developed by analyzing the content of two major classes of mass media--national news magazines and major metropolitan newspapers. Scores reflecting public relations efforts were developed using survey data obtained from medical school public information offices. Findings revealed that both school prestige and research productivity had significant independent associations with media visibility. Contrary to expectations, public information efforts were found to have no significant independent relationships with or effect on media visibility. What these data suggest is that public relations efforts, defined as number of public information initiatives, may not be having an effect on national media coverage independent of the news value of the organization conducting the efforts. (HOD)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

X This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

Public Relations Efforts and News-Value Characteristics
of Organizations: An Exploratory Study
of Their Relative Influence
on Media Visibility

by

S. Holly Stocking

The author is a part-time assistant professor of journalism at Indiana University in Bloomington. This paper is based on her doctoral dissertation in mass communications at Indiana. An earlier version was presented to the Theory and Methodology Division of the Association for Education in Journalism and Mass Communications during the 1983 annual convention in Corvallis, Oregon. The author extends special thanks to Sociology Professor Lowell Hargens, who served as her dissertation adviser, to Journalism Professors David Weaver and Ed Lambeth, who offered advice and encouragement, and to Telecommunications Professor Dolf Zillmann, who sparked her initial interest in research and who served as chairperson throughout her doctoral program. The author also acknowledges the Graduate School of Indiana University, which provided funds to support this research.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

S. Holly Stocking

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

ED247552

DS 207-668

Public Relations Efforts and News-Value Characteristics
of Organizations: An Exploratory Study
of Their Relative Influence
on Media Visibility

Contemporary journalism texts typically acknowledge the importance of both news-values and public relations efforts in determining who and what becomes "news."¹

In spite of such acknowledgement, little is known about the relative roles played by news values and public relations efforts in determining news coverage. Up until now, researchers interested in news values have concentrated on source and event characteristics such as prominence, intensity and proximity with little regard for the role played by public relations efforts.² Similarly, researchers interested in public relations issues have studied the influence of public relations activities with scant regard for the news-value characteristics of the organization or individual conducting the efforts.³

This is not to say that news values and public relations efforts have never been considered in the same study. On the contrary, some public relations researchers have surveyed journalists as to why they use (or might use) the public relations materials they do, and/or why they pitch others, and "news values" often are cited as reasons for use or non-use.⁴ Another group of researchers has studied journalist-PR practitioner agreement on news values as a predictor of media use of public relations materials.⁵ But efforts along these lines have been few, and none

appears to have measured the effectiveness of public relations efforts while controlling for the news-value characteristics of the sources. As a result, little is really known about the extent to which news-value characteristics of sources and public relations efforts are independently related to news coverage.

Do public relations efforts play a role independent of the news-value characteristics of the organizations and individuals they are promoting? Public relations personnel often talk as though they do,⁶ and much public relations research seems to assume that they do.⁷ But without studies that examine the independent role of public relations efforts and news-value characteristics, it is difficult to know.

In an initial attempt to explore this problem, the author assessed the independent roles of public relations efforts, research productivity, and school prestige in securing science news coverage for American medical schools.

Medical schools were selected for study for several reasons: 1) Medical news is one of the largest categories of science news;⁸ thus there was likely to be enough news in the area to get the needed variance on the dependent variable; 2) medical schools typically have well-developed public relations efforts on behalf of medical research news,⁹ and 3) it was possible to ascertain the prestige and productivity of the schools, using prestige scores developed for medical schools,¹⁰ and productivity scores derived from indices of medical research literature.

Review of the Literature

Research on the public relations efforts of scientific organizations, and on the prestige and productivity of medical schools, is scant. But it does provide some bases for predictions.

Public Relations Efforts. Sachsman, in a study of environmental coverage in San Francisco, asked 11 reporters and editors in the Bay area to identify sources of environmental news items published in an 11-day period. Of the 200 items that could be identified, 53% were from public relations sources, and half of these items were rewritten press releases.¹¹ In another study, Dunwoody examined the behavior of national news reporters at a meeting of the American Association for the Advancement of Science (AAAS), and found that public relations efforts were highly influential in determining which scientists at the convention received national news coverage.¹²

This does not mean that scientists perceive public relations efforts as influential. In a recent survey of scientists, Dunwoody and Ryan asked scientists about their perceptions of the role played by public information offices in their organizations.¹³ The findings: Scientists say they interact to some extent with public information personnel at their institutions, but report that most stories published about them in the news media are not the result of such interactions. In interpreting their data, the authors note that such perceptions do not rule out the possibility that public information personnel are having an influence in securing media visibility. On the contrary, it could be that

scientists THINK journalists are initiating most of the contacts they have with the news media, but be unaware that the journalists they talk to were contacted first by their organization's public information officer.

Given these findings and interpretations, it was hypothesized that public information efforts on behalf of medical school research would be positively and independently associated with visibility of the schools in mass media stories about medical research.

Prestige and Productivity. Prestige and productivity were selected as indicators of a school's "news-value" on the assumption that the more productive a school's scientists and the more solid its scientific reputation, the more attractive the school will be as a source for science news.

Although empirical data demonstrating a positive relationship between research productivity and prestige and media visibility is lacking for scientific organizations, evidence does exist for individuals in science. Goodell¹⁴ and Shepherd,¹⁵ for example, have demonstrated a positive relationship between scientific reputation and media visibility for individual scientists; similarly, Shepherd's work suggests a positive relationship between scientific productivity and mass media coverage of individual scientists.¹⁶

Goodell suggests that the relationship between prestige and visibility exists because journalists have a "credibility criterion" which they apply to news sources in science. "Having been burned, science reporters are usually

cautious. If they are not familiar with a scientist, they check with other scientists about both the would-be newsmaker's personal reputation and his story...The scientist with a reputation in his field, then, has the advantage."¹⁷ In her discussion of science newsmaking, Goodell speculates that organizational prestige, like personal professional reputation, influences the media visibility of individual scientists. "If a scientist does not have a wide personal reputation, he can get attention from the media by being associated with a widely known institution. The chances are, reporters figure, if he has been hired by Bell Laboratories, or Harvard University, he is reputable and safe."¹⁸ Assuming Goodell is correct in this observation, it is not unreasonable to expect that organizational prestige influences the media visibility of organizations as well.

On the assumption that high-producing organizations are more likely than lesser-producing organizations to come to the attention of journalists who monitor scientific journals and write about science, it was hypothesized that organizational productivity, like individual productivity, would be positively and independently related to media visibility.

All of the foregoing hypotheses are expressed in the exploratory model in Figure 1.¹⁹

Methods

Eighty-five medical schools, all university-affiliated

medical schools established in the continental United States as of 1971-72, were asked to participate in this study.²⁰ With the exception of prestige data (see below), data for this study consisted of archival and survey data obtained on each school for the calendar year 1979.

Media Visibility. Media visibility scores for each medical school were developed by analyzing the content of two major classes of mass media -- national news magazines and major metropolitan newspapers.

All three of the major national news magazines -- Time, Newsweek, and US News & World Report -- were selected for analysis. The newspapers selected for analysis were the New York Times, the Chicago Tribune, the Los Angeles Times, and the Washington Post; these papers were chosen on the basis of their reputations, their geographical locations, and their availability for study.

Every issue of each news magazine and 15 "constructed weeks" of each newspaper were examined for the year. The constructed week sampling method²¹ was used for the newspapers in an effort to control for time and subject matter variations in news flow.

All medical research stories that mentioned US medical schools were coded. Medical research was defined as studies conducted at a medical school or by medical doctors, presented in a medical research journal, or appearing in the "medical" or "health" sections of the media or under the byline of an identified health or medical writer. A medical school was defined as any school accredited by the American Association of Medical Colleges and listed in the AAMC

Directory of Medical Education for 1979-80.²²

A medical school was assigned one visibility score for each medical research story in which it was mentioned. One judge did the coding, but as a check on the reliability of the coding, a second judge was asked to code a sample of the articles. The inter-coder reliability, figured as a simple percentage of agreement, was .81.

Visibility scores were combined across all media after a principal factor analysis of the scores suggested a large amount of common variance on a single factor (loadings of .54-.83 on the first factor of a two-factor solution).

Public Relations Efforts. Scores reflecting public relations efforts were developed using survey data obtained from medical school public information offices.²³

Specifically, public information officers were asked to answer a brief questionnaire about media-directed efforts on behalf of medical research produced by their school's faculty. The survey was elected as the source for public information data after pilot research indicated that most public information offices would be unwilling or unable to supply relevant public relations output. Attempts to secure public relations output bore out the pilot study results.

The questionnaire asked public information officers about two main areas of activity with respect to the national news media: 1) the number of news releases concerning medical school research sent during the year to each of the news media under study, and 2) the number of other story-based initiatives (or tips) concerning medical research (such as phone calls, letters, or tip sheets, made

to each of these media. In addition, there was room on the questionnaire to declare any other activities undertaken to attract national media attention to medical school research.

The survey, which involved three separate mailings as recommended by Dillman,²⁴ was conducted in the early fall of 1980.

The public information offices of 55 schools responded to the questionnaire, for a response rate of 65%. Two of questionnaires were judged unusable and so were dropped from the analysis. Prestige of the responding schools, as measured in Cole and Lipton's study of medical school reputations (see below), did not appear to differ much from that of the overall selected population. (The mean prestige score for respondents was 3.83, compared to 3.81 for all 85 schools).

In a principal factor analysis of all the responses to questions about public information activity, both news releases and tips directed to the national news media loaded highly (.57-.89) on the first of ten factors. Another item -- "visits to national media" -- also loaded highly (.58) on the factor. In a subsequent analysis of just these items, loadings ranged from .60 to .92 on a single factor (Factor 1 accounted for 58.9% of the common variance in a four-factor solution). Given these loadings, the items were combined to form a single measure of public relations output.

Productivity. The research productivity of medical schools were developed using Excerpta Medica, a medical information retrieval service that indexes articles from more than 4,000 primary journals in human medicine.

Specifically, the computer was instructed to count all publications listed for each school for the year under study.²⁵

Prestige. Prestige scores on each school were obtained from Cole and Lipton's study of medical school reputations.²⁶ Cole and Lipton asked the full-time faculty of 94 medical schools to rate American medical schools. Although these ratings are now a few years old, there is reason to believe that they have not changed significantly since they were developed. Similar reputation studies, for example, have found that such ratings remain relatively stable over time.²⁷

Findings

Eighty-nine US medical schools were mentioned in media articles about medical school research. Visibility scores (across all media) ranged from 1 story mention, received by 23 schools, to 32 story mentions, received by Harvard University. The most frequent visibility score (the mode) was 1. The median score was 3.21, and the mean was 5.45.

Forty of the schools mentioned had enough data on the independent variables to include in the analysis. Five schools that were not mentioned but that had responded to the public information questionnaire were also included. Visibility scores for these 45 institutions ranged from 0, received by five schools, to 32, received by Harvard. The most frequent visibility score for these schools (the mode) was 1. The median score was 3, and the mean was 5.5. A summary of the scores on each variable in the analysis is

contained in Table 1.

The variables were analyzed using standard multiple regression techniques (simultaneous entry of variables). The intercorrelation matrix for the analysis is contained in Table 2, and the findings are in Table 3.

As expected, school prestige and research productivity were both found to have significant independent associations with media visibility.²⁸ The exact size of the independent relationship for each variable was obscured by a high intercorrelation between school prestige and productivity ($r=.85$),²⁹ but given the strong simple correlations of each variable with visibility, the associations could be assumed to be relatively large. Given the high intercorrelations between the variables, the sizes of the associations could also be assumed to be similar.

Contrary to expectations, public information efforts were found to have no significant independent relationship with, or "effect" on, media visibility. Although a modest positive correlation was found between public information efforts and media visibility (as indicated in Table 2), this relationship disappeared when the prestige of the organization and the productivity of its scientists were controlled for in the multiple regression analysis (see Table 3).

The major findings are expressed in Figure 2.

Discussion

Since a lack of significant independent relationship was not anticipated, it becomes necessary to address

arguments that this finding is a function of the way the problem was investigated. One argument that could be made is that the study excludes variables that need to be controlled in order for the effects of public information efforts to emerge. One such variable is geographic location. It might be argued, for example, that schools close to national news media have an advantage when it comes to getting press coverage, and that were one to control for this advantage, public information efforts would have an effect. Indeed, several of the qualitative responses on the questionnaires indicated that the geographic location of a school might be an important factor in determining whether or not the school obtained media coverage. For example, the public information officer of one school in the midwest said that his school was "on the wrong side of the Hudson River" to get coverage in the national media. The public information officer of a Southern California school put it more directly: "The "national media," she said, "have a tendency to be East Coast oriented." As a way of exploring this issue, an analysis was run including geographic regions as dummy variables. Results from this analysis (See Table 4) show that even when one controls for geographic location, public relations efforts fail to have a significant independent "effect." Thus the failure of public relations efforts to have a significant independent relationship with media visibility is not a function of a failure to include geographic location in the original analysis.³⁰

The fact that medical school public information efforts, as defined in this study, do not have a

relationship with media visibility independent of the schools' "news-value" characteristics should not be interpreted as saying that medical school public information offices may have no influence at all when it comes to securing visibility in the national news media.

For one thing, the public information offices could be playing a "reactive" role, influencing media visibility, not so much by their own initiatives, but by responding to independent initiatives from the media. A multiple regression analysis including number of national news media initiatives (as reported by public information officers) suggests that public relations offices may in fact play such a role, though such "influence" is at best slight ($\beta = .18$; $F = 2.00$, $p = .17$).

It may also be the case that while public information offices fail to influence national media with the quantity of their initiatives, some do manage to influence them with the quality of their presentations (news judgment, writing style, etc.). Unfortunately, not enough of the public relations offices participating in this study responded to a request for their releases, so it was impossible to adequately examine quality of output. More research will be needed before the full picture can be known.

What these data do suggest is that public relations efforts, defined as number of public information initiatives, may not be having an "effect" on national media coverage independent of the "news values" of the organization conducting the efforts. Such a conclusion would be consistent with university scientists' perceptions

as measured in the Dunwoody and Ryan study -- namely, that public relations offices have little influence in bringing their research to the attention of the mass media.³¹ Such findings would also be consistent with anecdotal evidence presented at a recent conference on university public information efforts on behalf of science. Appearing at the meeting, Jerry Bishop, science writer for the Wall Street Journal, noted that he for one is rarely influenced by news releases from academic institutions. The reason: He simply gets too many.

I have on the floor by my desk, a pile literally about four feet long and about two feet high of press releases that have come in. It's been about three or four weeks since I cleaned the pile out. All of them are unopened. I am sure there are some good stories sitting in there, but it's gotten so out of hand on releases, particularly from the universities, that I just cannot take the time to do it.³²

Similar observations have been made by science writers in recent issues of the newsletter of the National Association of Science Writers.³³

The apparent discrepancy between these findings and those of previous studies, which have concluded that public relations efforts on behalf of science are "effective," can be explained several ways.

One possible explanation is that public relations personnel in medical schools may be less savvy about public information activities than are personnel in the situations studied earlier, and so are less likely to produce the types of initiatives that have an influence.

Another explanation may lie in differences between

subjects and circumstances examined. For example it may be that public information initiatives were observed to be important in a AAAS convention, but not important in this study because the national news media are less dependent on public information efforts in their day-to-day routines (which these data reflect) than they are in a scientific convention where there are daily deadlines and editors' pressures to cover "what the other guy is covering." 34

It may also be the case that public information initiatives are effective for one set of science reporters and not for another. It may be, for example, that public information efforts, while not influential with national news media reporters, would be effective with reporters on local newspapers.³⁵ Additional research is needed to explore such possibilities.

Summary and Implications

This study has demonstrated that under some circumstances public relations activities have no relationship or "effect" on media visibility independent of the news-value characteristics of the organizations for which they are working.

From a practical perspective, the data sound a warning to public relations practitioners who judge the effectiveness of public relations efforts without taking into account the "newsworthiness" of the organizations publicized. Productive and prestigious organizations, like the productive and prestigious medical schools in this study, may obtain national coverage irrespective of the

amount of public relations activity. Conversely, unproductive and unprestigious organizations may have difficulties getting coverage.

For investigators who study the role of public relations activities in determining what and who becomes "news," the findings issue a challenge. Previous studies documenting the "effectiveness" of public relations activities have failed to control for the news values of sources. Were researchers to do so, they might find that public relations activities play a more limited role than previously suspected.

Footnotes

- ¹See, for example, Michael Ryan and James W. Tankard, Jr, Basic News Reporting (Palo Alto, Ca.: Mayfield Publishing Company, 1977; Melvin Mencher, News Reporting and Writing (Dubuque, Ia.: Wm. C. Brown Company, 1981).
- ²See, for example, Johan Galtung and Mari Holmboe Ruge, "The Structure of Foreign News," in Ed Tunstall (Ed.), Media Sociology: A Reader (London: Constable and Co., Ltd., 1970).
- ³Cutlip and Center, in their popular public relations text (Scott M. Cutlip and Allen H. Center, Effective Public Relations, Englewood Cliffs, N.J., 1978), note that public relations effectiveness has traditionally been measured (at least in part) by counting the number of news clippings, air mentions, and film showings that feature the news source. News-value characteristics of the source -- characteristics such as "prominence" that might attract news coverage irrespective of public relations activities -- apparently are not taken into account in these assessments.
- ⁴See, for example, Craig E. Aronoff, "Predictors of Success in Placing Releases in Newspapers," Public Relations Review, 2(4):43-57 (1976); Bill L. Baxter, "The News Release: An Idea Whose Time has Gone?", Public Relations Review, 7(1):27-31 (1981); Joyce Elaine Knodell, "Matching Perceptions of Food Editors, Writers, and Readers," Public Relations Review, 2(3):37-56 (1976).
- ⁵Phillip J. Tichenor, Clarice N. Olien and George A. Donohue, "Predicting a Source's Success in Placing News in the Media," Journalism Quarterly, 44: 32-42 (Spring 1967).
- ⁶Craig E. Aronoff, "Credibility of Public Relations for Journalists," Public Relations Review, 12:45-56 (1975).
- ⁷Scott M. Cutlip, "The Press vs. the Publicist," Nieman Reports, 5:20-22 (1951); W. H. Chase, "Public Relations in Modern Society," Public Relations Quarterly, 7:12-20 (1962); T. E. Mullaney, "The Basic Change in Press Relations," Public Relations Journal, 20:6-8 (1964); Craig E. Aronoff, "Predictors of Success in Placing Releases in Newspapers," Public Relations Review, 2(4):43-57 (1976).
- ⁸Hillier Krieghbaum, Science and the Mass Media (NY: New York University Press, 1967).
- ⁹Jack Righeimer, Association of American Medical Colleges, Group on Public Relations, Personal Communication, March, 1980).

- 10 J.R. Cole and J. A. Lipton, "The Reputations of American Medical Schools," Social Forces, 55:662-684 (1977).
- 11 David B. Sachsman, "Public Relations Influence on Coverage of the Environment in San Francisco Area," Journalism Quarterly, 53:54-60 (1976).
- 12 Sharon L. Dunwoody, Science Journalists: A Study of Factors Affecting the Selection of News at A Scientific Meeting. Unpublished doctoral dissertation, Indiana University, 1978.
- 13 Sharon Dunwoody and Michael Ryan, "Public Information Persons as Mediators Between Scientists and Journalists," Journalism Quarterly, in press.
- 14 Rae Goodell, The Visible Scientists (Boston: Little, Brown and Company, 1977).
- 15 R. Gordon Shepherd, "Science News of Controversy: The Case of Marijuana," Journalism Monographs No. 62 (1979).
- 16 Shepherd's work on press coverage of the marijuana controversy must be read carefully. While research productivity was not a strong predictor in general news stories about health hazards of marijuana, it did seem to be a strong predictor in stories in which researchers were tapped as sources. Put another way, while marijuana researchers were seldom used as sources for general news about marijuana effects, when they were used (in stories that explicitly mentioned research), they were likely to be among the most frequently "cited" researchers in their fields.
- 17 Goodell, op. cit., p. 37
- 18 Ibid.
- 19 The model suggests that public relations activity leads to media visibility, but media visibility does not lead to public relations activity. One might argue that media coverage does in fact influence public relations efforts, if only by virtue of the fact that public relations officers take note of what appears in the media and adjust their public relations efforts according to what their assessments tell them will "sell." While this is probably true, it also has been noted (James Grunig, "Organizations and Public Relations: Testing a Communication Theory." Journalism Monographs No. 46, 1976) that public relations personnel typically spend little of their time securing "feedback" from the media. Instead, the bulk of their efforts (and certainly the most systematic of their efforts) is devoted to getting public relations materials out to the media -- to facilitating the flow FROM public information offices TO the

media. Thus, the arrow from public information activity to media visibility reflects the dominant flow of influence between variables. In the same vein, the model suggests that school prestige leads to media visibility, but media visibility does not lead to prestige. Although it might be argued that mass media coverage of a school would enhance its reputation in the eyes of some scientists, it is probably safe to say that journalists are more likely to be impressed (and thus influenced) by the prestige of a scientific organization than scientists (and the organizations with which they are affiliated) are to be impressed and influenced by press coverage. Among scientists, the mass media are rarely seen as necessary to the development of institutional reputations (except indirectly -- as noted in Dunwoody and Ryan, Footnote 13 -- by helping scientists get funding from the federal government, which in turn facilitates publishing endeavors); in fact, the mass media often are accused of tarnishing reputations in science (Goodell, Footnote 14; Dunwoody and Ryan, Footnote 13). Mass media reporters, on the other hand, do claim to value the reputations of their sources (Goodell, Footnote 14). Thus, it is assumed in this study that the dominant flow of influence is from school prestige to media visibility rather than from media visibility to school prestige. Similarly, although it might be argued that media visibility facilitates publishing activities by bringing a school to the attention of some journal editors, it is assumed (using the same reasoning) that the dominant flow of influence is from publishing activity to media visibility rather than the other way around.

²⁰These were the university-affiliated schools for which prestige scores were available; a complete list of schools can be obtained from the author.

²¹R. L. Jones and R. E. Carter, "Some Procedures for Estimating 'Newshole' in Content Analysis," Public Opinion Quarterly, 23:399-403, 1959)

²²The coding scheme is a bit more complicated than appears here. For a more detailed description of the coding scheme, please write the author.

²³A list of public information offices was obtained from the Group on Public Relations of the Association of American Medical Colleges, Washington, D.C. Names of public information directors were obtained from this list and from the 1979-80 catalogs of individual schools. To insure that a medical school's public information office was the office primarily responsible for press relations with the national news media, a filter question was included early on in the questionnaire. This question asked the respondent to identify the public information office "most likely" to contact the national news media concerning research produced

by the medical school faculty. (Options were medical school public information office, medical center public information office, affiliated hospital public information office, and "other"). In the event that the office identified was not the office of the respondent, the individual was asked to pass on the questionnaire to "someone who does work in the office you have checked." None of the responding schools passed on the questionnaire to another office. For 30 of the schools, the responding office was the only one designated to promote medical school research with the national news media. Eighteen of the schools had one other office involved in promoting research at least some of the time, and five schools had more than two offices involved on occasion. A formal test for the interaction of public information activity (as defined in the text) with number of public information offices failed to find any significant difference in output between schools with one office and those with more than one such office. It thus appears that the "filtering" technique did not seriously underestimate the public information activity for those schools with more than one office.

²⁴Don A. Dillman, Mail and Telephone Surveys: The Total Design Method (NY: John Wiley and Sons, 1978)

²⁵Interested parties may write the author for a detailed account of the instructions.

²⁶Cole and Lipton, op. cit.

²⁷P.M. Blau and R. Z. Marguelies, "The Reputations of American Professional Schools," Change, 6:42-47 (1974); A.M. Cartter, An Assessment of Quality in Graduate Education. (Washington, D. C.: American Council on Education, 1966); K.D. Roose and C. J. Andersen, A Rating of Graduate Programs (Washington, D. C.: American Council on Education, 1970).

²⁸The reader will note that statistical tests for significance are reported in spite of the fact that the cases in this study were not randomly sampled, and inferences are not being made to any larger population. The use of inferential statistical tests with population data, while frowned upon by some, is justified on the grounds that such tests formally test whether any random process -- whether random sampling or another process such as random measurement error -- could have produced the results. With multiple regression analyses using population data, we simply interpret a finding that is statistically significant at the .05 level as meaning that the chances are five out of a hundred that the non-zero regression coefficient is a function of random measurement error (or another random process).

²⁹The greater the intercorrelation of the independent

variables, the less the reliability of the relative importance indicated by the partial regression coefficients.

³⁰It does seem to be true, though, that school located in the northeastern section of the United States have an "edge" on other schools. That is, schools in the northeast part of the United States are significantly more likely than schools located elsewhere to be visible in the national press.

Apparently because many "prestigious" schools are located in the northeast, the relationship of prestige with media visibility is weakened to the point of insignificance ($p=.16$) when region is added to the analysis. It should be pointed out, however, that the betas for prestige (.27) is almost as large as that for the northeast (.31), leading one to suspect that with additional cases, this factor too would be statistically significant. In sum, it seems fairly safe to conclude that both organizational prestige and location in the northeast region are independently associated with media visibility, though neither variable has as strong an association as productivity.

³¹Dunwoody and Ryan, op. cit.

³²Southern Regional Workshop for University Science Writers: Proceedings. (Athens, Ga.: The University of Georgia, 1979, pp. 27-28).

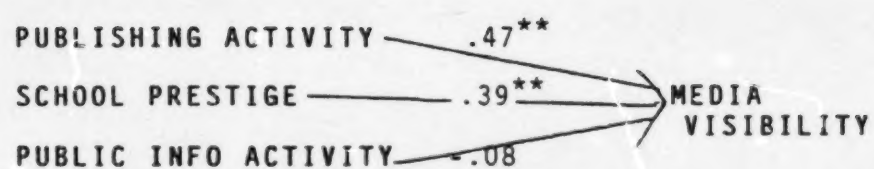
³³NASW Newsletter, 30:6-9, December, 1982. NASW Newsletter, 21:1, May, 1983.

³⁴Reporters' reactions to Dunwoody's study of coverage of a AAAS Convention suggest this may in fact be the case. In her study (cited above) Dunwoody found that reporters relied a great deal on public information efforts in determining what to write about. A number of journalists who subsequently read Dunwoody's findings agreed with her, but argued that the way they cover conventions is not typical of the way they cover science in general. What really was needed, they argued, was a study that would examine what they do on a day-to-day basis. If such studies were undertaken, they implied, researchers would find that public information efforts played a much smaller role.

³⁵In responding to the public information questionnaire, several public information officers volunteered that obtaining visibility in the national news media is a low priority item for them, taking a definite back seat to obtaining visibility at the state and local levels. It is not clear why this is so, but one interpretation of such priorities could be that public information officers believe they have a greater chance of influencing local and regional media than they do of affecting national publications.



Figure 1: News-Value Characteristics and Public Information Efforts: An Exploratory Model of Their Relationship to Media Visibility



$$R^2 = .65^{**}$$

**beta significant at $<.05$

Figure 2: Beta Weights Reflecting Relationships between
Public Info Activity and News-Value
Characteristics (IVs) and Media Visibility (DV)

**TABLE 1: Summary of Scores on
Media Visibility, Public Information Activity,
Publishing Activity, and School Prestige.**

STATISTIC	VARIABLE			
	Media Vis	Pub Info	Publshg	Prestige
Range	0-32	0-574	33-875	2.48-5.71
Mean	5.5	107.7	299.4	3.83
Median	3.0	62.0	232.0	3.77
Mode	1.0	0	201.0	3.54
St. Dev.	6.8	135.3	185.5	.67

TABLE 2: Intercorrelations of Media Visibility, Public Information Activity, Publishing Activity of Scientists and School Prestige (n=45)

	Pblc Info Activity	Pblshng Activity	School Prestige	Media Vis
Public Relns Act.	1.00			
Publishing Act.	.30	1.00		
School Prestige	.40	.85	1.00	
Media Visibility	.22	.78	.76	1.00

TABLE 3: Multiple Regression Analysis of Media Visibility with Public Information Activity, Publishing Activity, and School Prestige (n=45)

INDEPENDENT VARIABLES	DEPENDENT VARIABLE VISIBILITY ACROSS MEDIA	
	B	beta
Public Info Activity	.00	-.08
Publishing Activity of Scientists	.02	.47**
School Prestige	3.99	.39**
(Constant)	-14.50	
	$R^2 = .65^{**}$ (F=25.94, p < .00)	

**significant at .05

*significant at .10

**TABLE 4: Multiple Regression Analysis
of Media Visibility with Public Information Activity,
Publishing Activity, and School Prestige
Using Geographic Regions 1,2, and 3
as Dummy Variables**

INDEPENDENT VARIABLES	DEPENDENT VARIABLE VISIBILITY ACROSS MEDIA	
	B	beta
Public Information Activity	.00	-.01
Publishing Activity of Scientists	.02	.53**
School Prestige	2.72	.27
Northeast Region (G1)	4.53	.31**
Midwest Region (G2)	1.18	.08
West Region (G3)	1.56	.09
(Constant)	-12.65	
$R^2 = .72^{**}$ (F=16.16,, $p < .00$)		
**significant at .05		
*significant at .10		